USGS
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Earthquake
Shaking ● Green Alert

GSN USAID FROM THE AMERICAN PEOPLE
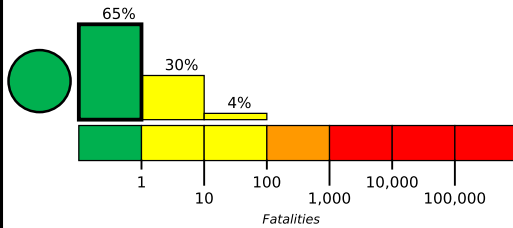ANSS

PAGER
Version 5

M 5.4, 67km NE of Bomdila, India

Origin Time: 2019-07-19 22:54:24 UTC (Sat 04:24:24 local)
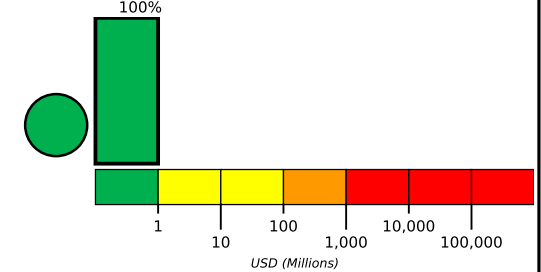Location: 27.7331° N 92.8134° E Depth: 10.0 km

Created: 2 hours, 2 minutes after earthquake

Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

65%
30%
4%

1 10 100 1,000 10,000 100,000
Fatalities

Estimated Economic Losses

100%

1 10 100 1,000 10,000 100,000
USD (Millions)

Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	804k*	427k	6k	1k	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

0	5	50	100	500	1000	5000	10000
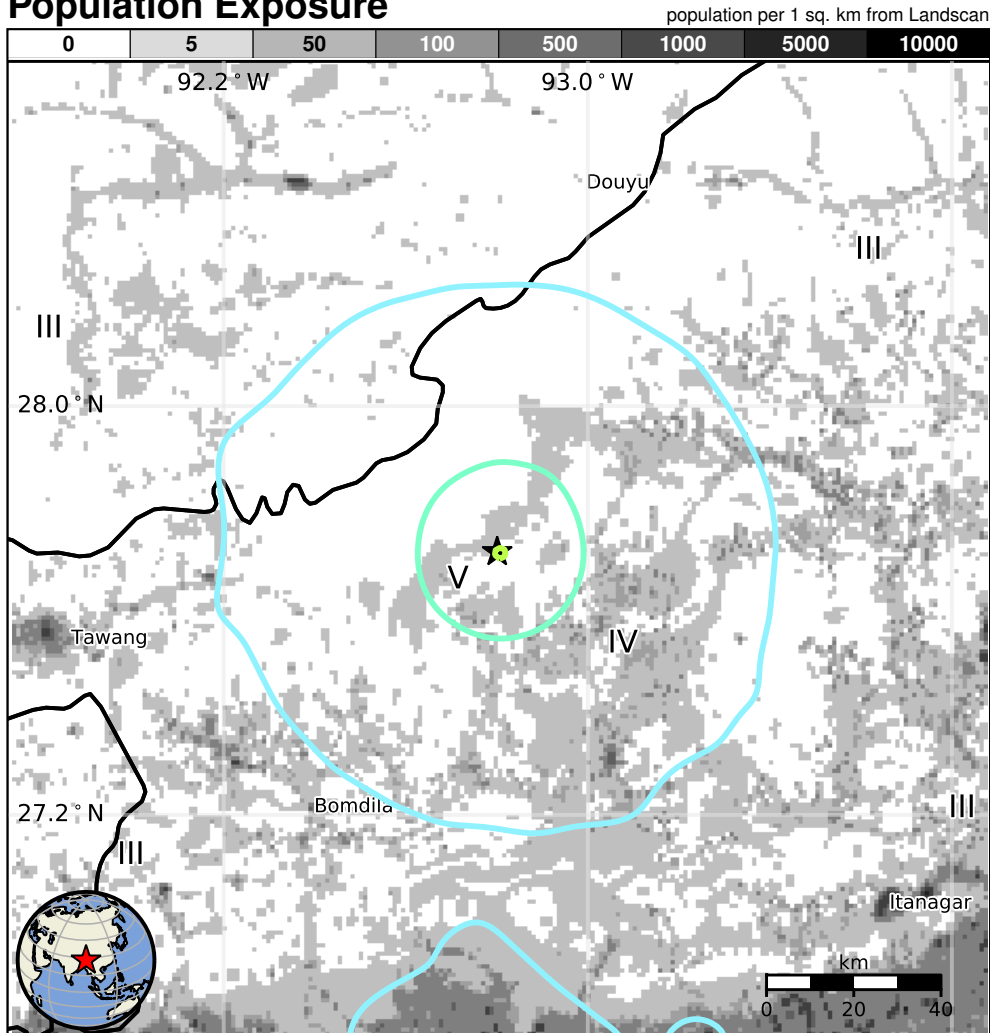
Structures

Overall, the population in this region resides in structures that are highly vulnerable to earthquake shaking, though some resistant structures exist. The predominant vulnerable building types are informal (metal, timber, GI etc.) and adobe block construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1988-02-06	362	5.8	VII(866k)	2
1980-11-19	397	6.3	VII(264k)	3
1984-12-30	340	6.0	IX(4k)	20

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Rangapara	19k
III	Gohpur	10k
III	Naharlagun	27k
III	**Bomdila**	**7k**
III	Xoixar	<1k
III	**Itanagar**	**45k**
III	**Douyu**	**<1k**
III	**Tawang**	**5k**

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage.
Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us70004pfb#pager

Event ID: us70004pfb